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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,621	10/31/2001	Takahiro Okada	P/1071-1495	1155

7590 01/13/2003

Steven I. Weisburd, Esq.
Dickstein Shapiro Morin & Oshinsky LLP
1177 Avenue of the Americas - 41st Floor
New York, NY 10036-2714

EXAMINER

HAM, SEUNGSOOK

ART UNIT PAPER NUMBER

2817

DATE MAILED: 01/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/001,621

Applicant(s)

OKADA ET AL.

Examiner

Seungsook Ham

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

Claims 9, 10 and 12 are objected to because of the following informalities:

In claims 9, 10 and 12, "the input/output terminal" lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurita et al. (EP '973).

Kurita et al. (fig. 8) discloses a composite dielectric filter device comprising : a substantially parallelepiped rectangular dielectric block 1; a plurality of inner conductors 4a, 4b, 34a, 34b extending in parallel from one face of the block to the opposite face; an outer conductor 8 arranged on at least some of the outer faces of the block so that groups of adjacent inner conductors among the plurality of inner conductors constitute a plurality adjacent filters 4a, 4b, and 34a, 34b; and an outer-conductor-free portion 18 formed at a part of the outer conductor corresponding to a boundary (i.e., a split point, see col. 7, lines 35-48) between the mutually adjacent filters.

Regarding claim 9, Kurita et al. (fig. 8) shows a transmitting filter 34a, 34b having a transmitting terminal 37, and a receiving filter 4a, 4b having a receiving terminal 7; an

input/output terminal as an antenna terminal 6; and a high-frequency circuit is connected to at least one of the transmitting and receiving terminals (see claim 6).

Claims 1-4 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Munn et al. (US '721) or Toda et al. (EP '759).

Munn et al. (figs 4 and 5) discloses a composite dielectric filter device 400 comprising : a substantially parallelepiped rectangular dielectric block; a plurality of inner conductors 414 extending in parallel from one face of the block to the opposite face; an outer conductor (i.e., metallized) arranged on at least some of the outer faces 406, 408, 410, 412, 404 of the block so that groups of adjacent inner conductors among the plurality of inner conductors constitute a plurality adjacent filters (Tx and Rx filters); and an outer-conductor-free portion 418 formed at a part of the outer conductor between the mutually adjacent filters. It should be noted that the outer-conductor-free portion 418 inherently creates a boundary between the two adjacent filters (3 resonators on the left side and 3 resonators on the right side).

Regarding to claims 2-4, Munn et al. (figs. 4 and 5) shows the outer-conductor-free portion 418 formed continuously around outer faces 408, 412 of the block and with the periphery of an input/output terminal (the middle terminal where the through hole 419 is located at).

Regarding claims 9-11, Munn et al. (figs. 4-6) shows a transmitting filter (3 resonators on the left side) having a transmitting terminal 416, 424 (see fig. 6), and a receiving filter (3 resonators on the right side) having a receiving terminal 416, 426 (see fig. 6); an input/output terminal as an antenna terminal ANT; and a high-frequency

circuit (e.g., cellular system, col. 1) is connected to at least one of the transmitting and receiving terminals.

Toda et al. (fig. 8) discloses a composite dielectric filter device/duplexer 51 comprising : a substantially parallelepiped rectangular dielectric block 52; a plurality of inner conductors 54 extending in parallel from one face of the block to the opposite face; an outer conductor 55 arranged on at least some of the outer faces 55a-55d of the block so that groups of adjacent inner conductors among the plurality of inner conductors constitute a plurality adjacent filters (60A, 60B); and an outer-conductor-free portion (gaps on between the outer conductor portions 55b and 55d, 55a and 55c (col. 9, lines 27-35) formed at a part of the outer conductor corresponding to a boundary between the mutually adjacent filters.

Regarding to claims 2-4, Toda et al. (fig. 8) shows the outer-conductor-free portion (i.e., the gaps) formed continuously around outer faces of the block and with the periphery of an input/output terminal ANT.

Regarding claims 9-11, Toda et al. (figs. 8) shows a transmitting filter 60A having a transmitting terminal Tx, and a receiving filter 60B having a receiving terminal Rx; an input/output terminal as an antenna terminal ANT; and a high-frequency circuit (e.g., communication system, col. 1) is connected to at least one of the transmitting and receiving terminals.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munn et al. (US '721) or Toda et al. (EP '759) in view of Vangala et al. (US '329) or Atokawa et al. (JP '207).

Munn et al. and Toda et al. are applied as above. Munn et al. and Toda et al. do not show ground-connectable metal covers. However, such metal covers are well known in the art. Vangala et al. (figs. 1 and 2) discloses a ground-connectable metal cover for a dielectric filter for a shield. Atokawa et al. (fig. 12) also discloses a duplexer having ground-connectable metal covers 62, 63 for shielding.

Therefore, it would have been obvious to one of ordinary skill in the art to provide ground-connectable metal covers in the dielectric filter device of Munn et al. or Toda et al. as a shield since such metal covers are well known in the art as shown by Vangala et al. or Atokawa et al.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurita et al. (EP '973) in view of Vangala et al. (US '329) or Atokawa et al. (JP '207).

Kurita et al. is applied as above. Kurita et al. does not show ground-connectable metal covers. However, such metal covers are well known in the art. Vangala et al. (figs. 1 and 2) discloses a ground-connectable metal cover for a dielectric filter for a shield. Atokawa et al. (fig. 12) also discloses a duplexer having ground-connectable metal covers 62, 63 for shielding.

Therefore, it would have been obvious to one of ordinary skill in the art to provide ground-connectable metal covers in the dielectric filter device of Kurita et al. as a shield since such metal covers are well known in the art as shown by Vangala et al. or Atokawa et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Toda et al. (US '382), Hino et al. (US '040) and Tada et al. (US '521) disclose a conventional duplexer;

Pasco et al. discloses a metal cover for a duplexer; and

Atokawa et al. (US '195, equivalent for JP '207) discloses a duplexer having metal covers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seungsook Ham whose telephone number is (703) 308-4090. The examiner can normally be reached on Monday - Thursday from 8:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on (703)308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

A handwritten signature in black ink, appearing to read 'Seungsook Ham', with a long horizontal stroke extending to the right.

Seungsook Ham
Primary Examiner
Art Unit 2817

sh
January 6, 2003